



APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

The following claims have been marked to show insertions (underlined) and deletions (~~strikethrough~~):

1. (Amended) A method of microwave assisted chemical analysis comprising,
providing a sample within a vessel,
heating said sample by microwave energy to volatilize at least a portion of said sample to establish a gas phase,
cooling said gas phase while continuing to heat said sample by said microwave energy, and
after removal of at least a portion of at least one of said gas phase and said unvolatilized portion of said sample analyzing the unvolatilized portion of said sample to determine the composition of said unvolatilized portion.
2. (Amended) The method of claim 1 including
employing a ~~said~~ sample containing silicon, and
said unvolatilized portion including trace elements which were contained in said silicon containing sample.
4. (Amended) The method of claim 1 including
performing said process in a closed ~~said~~ vessel.
6. (Amended) The method of claim 1 including
employing ~~as said vessel~~ a vessel which has portions which are transparent to microwave energy.
8. (Amended) The method of claim 2 including
employing a vessel with at least two compartments in communication with each other,
introducing a silicon containing sample and a first acid into a first ~~said~~ compartment, and
introducing a second acid into a second ~~said~~ compartment.
10. (Amended) The method of claim 9 including

distilling said hydrofluoric acid out of said second compartment and
into said first compartment, and

distilling SiF_4 out of said first compartment and into said second
compartment.

11. (Amended) The method of claim 1 including
employing ~~as-said~~ microwave energy of a frequency of about
27 to 2450 megahertz.

12. (Amended) The method of claim 11 including
employing a ~~said~~ vessel composed of a fluoropolymer.

14. (Amended) The method of claim 1 including
during said heating process introducing additional sample into said
vessel.

15. (Amended) The method of claim 14 including
said process being a continuous process.

17. (Amended) The method of claim ~~4~~ 8 including
during said process introducing additional said sample into said
vessel.